

## TRANSMIT/RECEIVE ARBITRATOR

### ABSTRACT

The amplitudes of a signal on the microphone input of a telephone and a signal on the line input of the telephone are compared with each other and with two  
5 thresholds. The comparisons are sampled and the samples control an up-down counter. The count in the counter is compared with two thresholds and the results of the comparisons are used to control at least two accumulators. A first accumulator counts consecutive comparisons having the same result and a second accumulator counts up or down in accordance with the comparisons. The counts in  
10 the first and second accumulators are logically analyzed to determine whether to receive or transmit. A plurality of samples defines a window, at the end of which the up-down counter is reset. The accumulators store data from a plurality of windows.